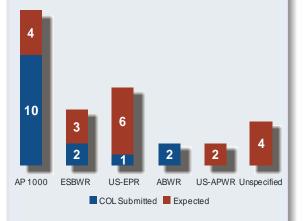
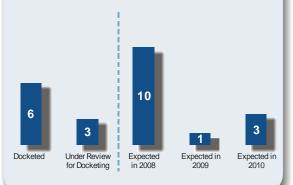
#### **Quick Statistics**

Early Site Permits issued Permits under review	3 1
Total COL applications submitted COL applications docketed	9 6
Certified reactor designs Reactor designs under review	2 4
Expected license applications	23
Expected number of reactors	34
Announced plant locations	20
Companies applying for COL	20

# **Number of Planned Reactors (34)**



# **Status of License Applications (23)**



#### **Announced Nuclear Locations**

- Bellefonte (AL)—Tennessee Valley Authority
- Elmore County (ID)—Alternate Energy Holdings
- Callaway (MO)—AmerenUE
- Calvert Cliffs (MD)—UniStar
- Clinton (IL)-Exelon
- Comanche Peak (TX)—Luminant (formerly TXU)
- Fermi (MI)—DTE Energy
- Grand Gulf (MS)—Entergy
- Shearon Harris (NC)—Progress Energy
- Levy County (FL)—Progress Energy
- Nine Mile Point (NY)—UniStar
- North Anna (VA)—Dominion Energy
- River Bend (LA)—Entergy
- South Texas Project (TX)—STP Nuclear
- V.C. Summer (SC)—SCE&G
- Susquehanna (PA)—PPL
- Turkey Point (FL)—Florida Power & Light
- Victoria County (TX)—Exelon Generation
- Vogtle (GA)—Southern Nuclear
- William States Lee III (SC)—Duke Energy

# Vendor Technology Under Consideration

#### **General Electric**

- Advanced Boiling Water Reactor (ABWR), 1,356 MWe (certified 10CFR52 App A)
- Economic Simplified Boiling Water Reactor (ESBWR), 1,560 MWe

#### Westinghouse

 Advanced Passive Pressurized Water Reactor (AP1000), Twin units 1,117 MWe each (certified 10CFR52 App D)

#### **AREVA**

 United States Evolutionary Pressurized Water Reactor (US EPR), 1,600 MWe

#### Mitsubishi Heavy Industry

 United States Advanced Pressurized Water Reactor (US APWR), 1,700 MWe



U.S. Department of Energy Office of Nuclear Energy

# Nuclear Power Deployment Scorecard

**Powering Future Decades** 





U.S. Department of Energy Office of Nuclear Energy

May 5, 2008

Updates available at http://www.nuclear.gov

#### What's New

On April 28, NRC announced a hearing for the William Lee COL application in South Carolina.

A second unnamed company has notified the NRC of its intent to pursue a COL.

NRC docketed Entergy's application to build an ESBW at their Grand Gulf site on April 17.

NRC docketed Progress Energy's application to build an AP1000 at their Harris site on April 17.

On April 11, DOE announced a planned loan guarantee solicitation this summer, including \$18.5 billion for nuclear power facilities and \$2.0 billion in the "front end" of the nuclear fuel cycle.

On April 11, NRC issued a 60-day extension for petition to Intervene in the COL for Bellefonte.

Georgia Power entered into an EPC contract with Westinghouse and the Shaw Group on April 8, 2008 for two Westinghouse AP1000 reactors at the Vogtle site in Georgia. The contract will be submitted to the Georgia Public Service Commission as a capacity request (expected May 2008), which will be reviewed with competing base-load generation bids.

Alternate Energy Holdings abandoned the proposed Bruneau site April 5 in favor of Elmore County, Idaho.

DOE and NRC issued a joint lessons learned report March 26 for NP2010 early site permits (http://www.nuclear.gov/pdfFiles/FinalReporton ESPLessonsLearned.pdf).

### Legend



Implementation proceeding according to plan and schedule



Progress being made; however, issues or uncertainties exist that could impede progress



Unlikely to realize objectives absent significant management attention



No dates or end state established



Indicates change in status or progress since last evaluation



Regulatory Demonstration completed. No further government assistance is warranted.

# **Nuclear Power Deployment Scorecard**



# **Early Site Permit (ESP)**

- Three site permits issued by NRC (Clinton, Grand Gulf, North Anna)
- One site permit application under NRC review (Vogtle)
- Submission of three other ESP applications expected in 2010-2012



# **Combined Construction and Operating License (COL)**



- Six COL applications docketed for NRC review (STP, Bellefonte, Harris, Grand Gulf, North Anna, Lee)
- Three COL applications submitted to NRC awaiting acceptance (Calvert Cliffs, Vogtle, V.C. Summer)
- Submission of 14 additional COLs expected in 2008-2010
- Three applications expected in the 3<sup>rd</sup> quarter (Callaway, Comanche Peak, and Levy County)



NRC anticipates issuing COL 42 months after docketing



- Two advanced reactor designs certified by NRC (ABWR and AP1000)
- Four reactor designs undergoing NRC certification review (ESBWR, US-EPR, AP1000 amendment, and US-APWR)



# **New Nuclear Plant Orders**

#### Long-Lead Equipment Orders

- Six utilities have ordered large long-lead nuclear component forgings with three reactor vendors
- No other long-lead equipment (e.g., heat exchanger and generator) have been ordered to date
- Japan Steel Works is only manufacturer of ultra-large forgings worldwide-capacity limited

# Engineering, Procurement and Construction Contracts (EPC)

- One EPC contract initiated; negotiations on-going among vendors and several utilities
- Plant engineering in progress; completion required to start construction

# New Nuclear Plant Construction, Operation & Deferral

• No utility has committed to constructing a new plant

# Federal Financial Incentives

- Standby Support (Risk Insurance)
  - Final 10 CFR Part 950 Rule issued August 11, 2006
  - Received first Notice of Intent to Request a Conditional Agreement April 21, 2008



- Internal Revenue Bulletin 2006-18 published May 2006
- Publish regulation for Production Tax Credit in FY08

### Energy Facility Loan Guarantee

- Final 10 CFR Part 609 Rule amended January 18, 2008
- Solicitation for small scale loan guarantees closed December 2006
- No solicitation issued for nuclear plant loan guarantees
- \$18.5 billion approved for loan guarantees for nuclear plants December 2007
- Implementation plan submitted to Congressional Committees April 11, 2008